Rennert, Janet@OEHHA

Subject:	Meet with Monsanto re: Glyphosate
Location:	CalEPA Conference Room 2550
Start:	Wed 10/7/2015 1:30 PM
End:	Wed 10/7/2015 3:00 PM
Show Time As:	Tentative
Recurrence:	(none)
Meeting Status:	Not yet responded
Organizer:	Rennert, Janet@OEHHA
Required Attendees:	Hirsch, Allan@OEHHA; Marty, Melanie@OEHHA; Monahan-Cummings, Carol@OEHHA; Sandy, Martha@OEHHA; Wong, Patty@OEHHA; Schmitz, Rose@OEHHA; Ralph Simoni; Zeise, Lauren@OEHHA
Optional Attendees:	Kammerer, Fran@OEHHA

The meeting start time is 1:30pm Pacific time. Upon arrival at 1001 I Street, please report to the Visitor's Center located on the first floor. Please call Janet Rennert at (916) 322-6325 to provide an escort to the 25th floor. If needed, the conference call number is (888) 278-0296, pass code 7984358, Carol Monahan-Cummings will host the call. Thank you.

10/7/15 Glyphosate Monsanto Mtg.

martha.sandy @
rose.schmitz @ dtsc.ca.gov

Live Meeting

Trent Norris
Jay Murray
see cards

How they would calculate NSRL
David Heering
Donna Farmer
John Rebman

David – Uses of glyphosate
glyphosate oxyfluorfen, paraquat, other
pendimethalin, trifluralin (pre-emergent)
saflufenacil
If glyphosate can't be used, may use
more toxic herbicides

Donna – went over reg reviews
Jay – developed an NSRL
Used LMS
IARC evaluated only 2 of the 5
long-term Ca studies in mice
Not statistically sig in pairwise comparison
IARC evaluated only 2 of 9 rat studies

Trent – OEHHA's 2007 PHG says
no cancer effect.

based on interpretation?

Realizes we have to list / but disagrees it causes cancer

Several possible exposures that are possible including waterways that could be for drinking water

Concerns about use based on label exemption, government entity exemption

Timing a big issue - label problem, need USEPA approved

Can do NSRL prior to listing

Greim article presentation, supplemental materials has copies of tumor data from those studies

Message

From: FARMER, DONNA R [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=180070]
Sent: 9/21/2009 5:12:07 PM
To: COMBEST, JOHN C [AG/1000] [john.c.combest@Monsanto.com]
Subject: RE: Roundup article in Fremantle Herald

I didn't find anything on the Australian site either ...however take this question 5. It is not Roundup that is taken up it is glyphosate. It stops the synthesis of 3 amino acids (they are used to make proteins) and this "process" is also found in microbes and fungi.

5. How does Roundup work?
Roundup is taken up through the leaves and moves in the sap flow throughout the plant. It stops the production of proteins so that the plant starves. This process is found only in plants; Roundup has extremely low toxicity to humans and wildlife.

Or this - you cannot say that Roundup does not cause cancer..we have not done carcinogenicity studies with "Roundup".

2. Will Roundup harm my family or me?
Based on the results of short term and long term testing, it can be concluded that Roundup poses no danger to human health when used according to label directions. In long term exposure studies of animals, Roundup did not cause cancer, birth defects or adverse reproductive changes at dose levels far in excess of likely exposure.

I will follow up with the Monsanto folks who interface with Scotts...they are aware that Scotts does these things.

Donna

-----Original Message-----
From: COMBEST, JOHN C [AG/1000]
Sent: Monday, September 21, 2009 11:07 AM
To: FARMER, DONNA R [AG/1000]
Subject: RE: Roundup article in Fremantle Herald

I did not find any reference on their main (US) page to "biodegradable."

-----Original Message-----
From: FARMER, DONNA R [AG/1000]
Sent: Monday, September 21, 2009 11:06 AM
To: COMBEST, JOHN C [AG/1000]
Subject: RE: Roundup article in Fremantle Herald

Did you find the link?
This is to their Q&A and I can tell you they have a number of things that a not acceptable.
http://www.scottsaustralia.com.au/FAQs/Roundup

-----Original Message-----
From: COMBEST, JOHN C [AG/1000]
Sent: Monday, September 21, 2009 8:11 AM
To: PERSON, JANICE L [AG/1030]; FARMER, DONNA R [AG/1000]; HELSCHER, THOMAS M [AG/1000]
Subject: Fw: Roundup article in Fremantle Herald

Janice and Donna,

Here's the Australian thread, to the latest message.

John

----- Original Message -----
From: LEADER, MICHAEL [AG/5020]
To: ANDERSON, NEIL J [AG/5020]; MCNAUGHTON, HONI JANINE [AG/5020]; MCGREGOR, JOHN [AG/5020]; HELSCHER, THOMAS M [AG/1000]

Cc: MCLEAN, KERYN [AG/5020]; TAYLOR, IAN N [AG/5020]; ARMSTRONG, JANICE M [AG/5340]; COMBEST, JOHN C [AG/1000]
Sent: Mon Sep 21 00:08:56 2009
Subject: RE: Roundup article in Fremantle Herald

Thanks Neil. Honi has already have pointed out the flaws in the studies, but there can't be any harm in doing so again. Studies on the safety of Roundup is a good approach, but I believe there are also some on glyphosate's benefits for the environment (even if the surfactant is not biodegradable). It's a shame the Scott's guy is blaming us too!!

Cheers

Michael

Michael Leader

Corporate and Regulatory Affairs Lead, Australia/New Zealand

Level 12, 600 St Kilda Road; Melbourne VIC 3004

Email: michael.leader@monsanto.com

Ph: +61 3 9522 7121 | Mob: +61 458 985 995 | Fax: +61 3 9522 6121

<http://www.monsanto.com.au/>

From: ANDERSON, NEIL J [AG/5020]
Sent: Monday, September 21, 2009 12:39 PM
To: MCNAUGHTON, HONI JANINE [AG/5020]; MCGREGOR, JOHN [AG/5020]; HELSCHER, THOMAS M [AG/1000]
Cc: LEADER, MICHAEL [AG/5020]; MCLEAN, KERYN [AG/5020]; TAYLOR, IAN N [AG/5020]; ARMSTRONG, JANICE M [AG/5340]; COMBEST, JOHN C [AG/1000]
Subject: RE: Roundup article in Fremantle Herald

Hi Honi

The reporter has printed the correct information that "Glyphosate is biodegradable but the surfactant is not". However, then she goes into a sensationalism mode quoting "studies" that suggest Roundup is not safe, which is probably derived from her interview of the Fremantle activist. I feel the response to FH needs to reiterate that her statement on biodegradability is correct, reiterate that Roundup is safe (and provide references), and if there are flaws in any of the studies quoted, point out these flaws.

Neil Anderson
QA & Formulations Lead, Asia Pacific
Monsanto Australia Ltd
Mobile phone: International 61409 382905; Australia 0409 382905

From: MCNAUGHTON, HONI JANINE [AG/5020]
Sent: Monday, September 21, 2009 10:56 AM
To: MCGREGOR, JOHN [AG/5020]; ANDERSON, NEIL J [AG/5020]; HELSCHER, THOMAS M [AG/1000]
Cc: LEADER, MICHAEL [AG/5020]; MCLEAN, KERYN [AG/5020]; TAYLOR, IAN N [AG/5020]; ARMSTRONG, JANICE M [AG/5340]; COMBEST, JOHN C [AG/1000]
Subject: Roundup article in Fremantle Herald
Importance: High

Hi John and Neil

The article in question has appeared in the Fremantle Herald as expected.

We need to think about our response. Possible suggestions:

- Letter from Scott's to the FH reiterating the correct information
- Letter from Monsanto to FH reiterating the safety of Roundup, etc

We may also need to compose a letter to all of Scott's Roundup customers (in WA) dismissing the allegations in the article. FH has a circulation of 20,000. However, the FTO concern is here in WA during this critical time.

- Keryn: You may want to contact DAFWA and other stakeholders as well as growers to explain what we plan to do.
- Ian: GSWG letter reiterating the safety of glyphosate from Steve Powles

Any actions and responses will need to be cleared with the US.

We will need to have a phone call about this including Scotts.

Please let me know your thoughts. I think you'll agree we need to jump on this.

Honi

Honi McNaughton
Public Affairs Manager

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Mobile: 0418 324 894
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Monsanto Twitter: http://www.twitter.com/monsantoco <http://www.twitter.com/monsantoco>

Monsanto's Blog: Monsanto According to Monsanto <http://www.monsantoblog.com/>

Monsanto For the Record: http://www.monsanto.com/monsanto_today/for_the_record/default.asp
<http://www.monsanto.com/monsanto_today/for_the_record/default.asp>

[redacted]

10/7/15 Mtg with Monsanto: Glyphosate will oppose the listing

Carol, Allan, M2, Rose, Jay Murray (tox(?)), Donna Farmer (tox), Dennis Averill (Monsanto), Don Rudawsky (Lawyer), David Heaney (Monsanto), Trent Norris (Lawyer)

Want to talk about NSRL

PHG on glyphosate is ≈ 8 yrs old 2007

Use in CA, crops, rts of way, irrigation canals, water transport canals

2013 PUR data: Almonds, wine grapes, Rts of Way, Cotton, Corn, pistachios etc. etc.

use before planting, some times already planted

Glyphosate is Post-emergence only

1974 1st on market

2015 IARC

Monsanto Mouse + malignant Astrocytoma — Mon Rat 1, Mon Rat — Chemi Nova mice + malignant Benign

Registered for use in CA on sources of drinking water, has a distances registration for distance to intake, possibly time

Sources — dH_2O

foods - staples

exposure to applicators

golfers, home use

Gremm et al publication's supplemental material has raw data

CONFIDENTIAL-DRAFT

Clustering glyphosate formulations with regard to the testing for dermal uptake

~~Ir.~~ C. Gustin[1] , Mark Martens [2] & C. Bates[1]

Monsanto, St.-Louis[1] ,Monsanto Brussels[2]

Julyne 2001

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1. Scope

Operator exposure assessments are part of an ANNEX III dossier, supporting the registration of a pesticide formulation in member states of the European Union. In this assessment default model settings, data assumptions and scenario's can be used (Tier 1 assessment) or more scenario specific and product/formulation-related data can be selected in order to refine the assessments and ~~turn~~ make the risk evaluation more realistic.
One of the product specific parameters that can make a big difference in the exposure assessment is the dermal uptake factor, ~~this~~ which is the fraction of the amount of active ingredient on the skin surface that is absorbed by the skin tissue. The current European default value for dermal uptake (~~this is~~ when product specific data is missing) is 10% of the actual exposure ~~(the exposure that reached the~~ to uncovered skin~~)~~ but future predictive models (EUROPOEM) could have a more conservative approach (100% of the actual exposure).When th~~e~~is new predictive models ~~will b~~ are implemented (2002), formulation specific dermal data will be key for a successful risk evaluation.

Glyphosate has a whole series of different formulations. The differences between those formulations are ~~for instance~~ based on:

- the different salt types used to formulate the active ingredient, ~~based on~~
- the use of different surfactants ~~and~~
- the ~~quantitative~~ active ingredient/surfactant ratio
- the concentrations of active ingredient and surfactants

~~or could be based on~~ the presence or absence of other inert ingredients such as anti-foam agents.

Formatted: Bullets and Numbering

Until today Monsanto has conducted ~~only~~ formulation specific dermal uptake research only on the formulation Roundup (MON 2139). It is clear that because the compositional differences the dermal uptake data for Roundup can't be extrapolated as such towards the wide range of formulations ~~because ……??~~. Every ingredient in a formulation can have a specific influence of dermal uptake. Scientific experimental evidence is necessary.

Ideally all of the different glyphosate formulations would have to be tested for dermal uptake. It is possible though, by focusing on the key parameters affecting dermal uptake, to compare and group (cluster) the formulations according to their expected behavior on the skin. For each formulation-cluster it will be possible to identify a representative formulation. This formulation could be tested for dermal uptake and the results could then be extrapolated to the other formulations in the same cluster.

Key to this approach is a correct identification of the formulation parameters that will impact the dermal uptake. For the purpose of this exercise we will have to focus on the data that's available in the supporting formulation specific data packages.

Which formulations are to be considered?

The formulations to be clustered are the formulations that will be subject to the European re-registration procedure in 2003 and by consequence have to be supported by an ANNEX III dossier. Existing formulations that will not be supported anymore or that will be supported by a third party are not considered.

Key parameters to be considered when grouping formulations ?

Please note that the description of the key parameters is based on the data that's available from the dossiers. This available data will be the basis for the clustering exercise.

Salt type, Dissociation constant (pKa),

Glyphosate acid exists as a zwitterionic species in a solid state (state 1a) is an acid with and has a relative low a water solubility in water (Sw) aroun (1.2 at 25 C)d 12 g/liter. This solubility is too lowhigh for formulating the active ingredient into a n emulsifiable concentrate (EC)suspendableoluble liquid (SL) but too highlow for a suspension concentrate (SC). For this reason glyphosate is (in most casesformulations), formulated as a salt. The formulations of interest in this exercise allow to distinguish four three salt types: an isopropylamine salt (IPA), a sodium salt, and an ammonium salt and a potassium salt of glyphosate. The majority of these formulations are is formulated as an IPA salt.

Once the formulation is diluted in water, the salt will dissociate immediately into the free acid (free acid state). As glyphosate consists of an amino group a carboxilic acid group and a phosphonic acid group, the dissociation of the free acid state of glyphosate happens in 3 sequential phases each characterized by a pKa value. In a first phase the carboxylic acid group will dissociate into a mono-anion (pK1 = 2.27). In a next step the mono-anion form shifts into the dianion form by dissociation of the phosphonic acid group (PK2 = 5.57). When the amino-group of the dianion form dissociates (pK3 = 10.25) the trianion

form is established. Each dissociation step is characterized by an equilibrium between the two forms and this equilibrium is pH driven. At physiological pH-values the dianion form (dissociated carboxylic and phosphonic acid group) is prevalent. ~~An equilibrium will be established between the dissociated and the non-dissociated form, with a clear shift to the dissociated form.~~

~~Also in the formulation an equilibrium exists between the dissociated and the non-dissociated form with here a clear shift to the non-dissociated form.~~ Common amine surfactants (see further) will further neutralize the glyphosate acid.

The dissociation state of glyphosate influences its behavior on the skin. For instance zwitterions penetrate the skin more readily than any other form of glyphosate.

Using a simplistic approach, the degree of dissociation is driven by the concentration, the pH ~~in the~~ and the dissociation constant (pKa).

Therefore a first basis to group the glyphosate formulations could be the salt type and pH. The same salt type of glyphosate in any formulation will ~~have~~lead to the same dissociation behavior if the same ?? surfactants are used (see further) and under comparable pH conditions.

Surfactants

The upper barrier of the skin (epidermis) is very lipophilic. This natural barrier prevents dehydration of the skin and prevents for instance bacteria and other outer micro-elements from entering the body through the skin. Glyphosate on the other hand is very hydrophilic so initially a low interaction between glyphosate and human skin is to be expected. Surfactants are able to increase glyphosate absorption through the skin by (1) removal of lipids (sebum) from the epidermal surface due to surfactant action, (2) increase of the hydration state of the skin (under closed exposure conditions), (3) increase of skin contact (spreading of water droplets by surfactant action), (4) increase of contact time with the skin due to decrease of evaporation of water from the droplets containing surfactant (surfactant monolayer at surface of droplets slows down passage to vapour phase,(5) increase of sub epidermal blood flow due to irritant action of surfactant, (6) intra-epidermal and sub epidermal intercellular water accumulation due to the irritant action of the surfactant ~~In order to have an interaction between the skin and glyphosate (1) the surface properties of the skin have to be modified (2) a contact area between glyphosate and the skin has to be established, the larger this contact area the more intense the contact and the higher the potential influx of glyphosate (3) the transfer of glyphosate in the skin will be facilitated if glyphosate is in a solubilized stage (advective transport). The longer glyphosate stays solubilized the more intense the contact with the skin.~~

~~All this elements can be influenced by surfactants. Surfactants will interact with the lipophilic skin surface and will thus alter the properties of the epidermis. This interaction~~

~~can consist in delipidization of the epidermis, the surfactant~~solvent ~~may be absorbed by the skin, altering it's properties or the surfactant could just irritate the skin.~~
~~The surface tension of droplets enriched with surfactants will be altered in a way that the contact angle between the droplet and the skin will decrease (wetting surface will increase compared to a normal water droplet).The increased contact area creates more potential for interaction between glyphosate and the skin (higher potential influx).~~
~~Surfactants will change the vapor pressure of mixtures in a way that evaporation of the droplet can be slowed down .As a result a longer interaction between the droplet and the skin is established with a higher/longer potential for glyphosate to interact with the skin.~~

~~All these properties of surfactants lead to a second basis for clustering: the surfactant type.~~ Formulations based on a same surfactant type ~~(and certainly when the~~ surfactant/ glyphosate ratio ~~in the formulation is in the same range)~~ will have a comparable interaction and contact with the skin. The second bases for clustering becomes a combination of the surfactant type, the surfactant load, the surfactant/glyphosate ratio and the glyphosate load in the formulation.

Anti-foams

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~~(Effect of anti-foam[22])~~ Sometimes an anti-foam agent is added to the formulation. Some ~~A~~anti-foams ~~foams are in general~~are tensio active agents others are not (e.g. polysiloxanes) ~~so they have also a~~but in general adding an anti-foam should not have an influence on the over all surface tension of the formulation and the spray liquid. Their concentration is in general much lower than the concentration of the surfactants. ~~Therefore when an anti-foam is added the formulation should be treated in a separate cluster.~~

Pelargonic acid

Sometimes pelargonic acid is added as a symptomology enhancer.

The addition of pelargonic acid in concentrations greater than that of the surfactant may play a role in glyphosate skin penetration. Since the formulations have been neutralised the pelargonic acid is likely to be present (otherwise not soluble) as the IPA salt which in fact is a soap.

Formulations containing pelargonic acid are clustered separately. ~~When grouping the formulations on this basis and adding the previous clustering criteria (salt type, pKa) formulation groups with an identical pH-range (as far as data is available) are obtained as well.~~

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The results based on these limited criteria are shown in table 1.

~~**Table 1 :Glyphosate formulation clusters based on salt type, pKa, surfactant type and pH**~~

[EMBED Excel.Sheet.5]

Message

From: ADAMS, STEPHEN A [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=113797]
Sent: 6/11/2010 9:11:01 PM
To: HAUPFEAR, ERIC A [AG/1000] [eric.a.haupfear@monsanto.com]; HEYDENS, WILLIAM F [AG/1000] [william.f.heydens@monsanto.com]
Subject: RE: Question...

yeah, that's what I think... Bill forgot to hit the alt key! ... w ppm? what the heck?

Other than that, 1,4-dioxane was once included on the FAO specification with a limit of 1 ppm, but since this is an impurity in the ethoxylated surfactants and not in the glyphosate manufacturing process itself, the specification was later dropped from the FAO specification. The 1 ppm limit in the formulation was retained by Monsanto as a specification managed via the raw material specification since it was considered to be reasonably attainable and a level that was considered to be below any health risk level. However, it is my understanding that the Monsanto CSWG had later increased the level of 1,4-dioxane up to 10 ppm in final formulated products.

So, to answer your question, I believe that there is a Monsanto self-imposed spec for 1,4-dioxane in the final formulation that is managed by the surfactant specs. I believe that spec is now 10 ppm, but we might want to confirm that value with Erin or Donna Farmer, both of whom are not in today.

The other thing is that we have to be very careful before we go slinging mud about 1,4-dioxane in Chinese glyphosate in public, because whether it is 1 ppm or 10 ppm, we most likely have it on our products too, and the general public does not understand the difference between 1 ppm and a bucket full...if there is a chemical that is considered to be a cancer-causing, it don't matter how much is in there, just that it is in there!

Steve

-----Original Message-----
From: HAUPFEAR, ERIC A [AG/1000]
Sent: Friday, June 11, 2010 1:57 PM
To: HEYDENS, WILLIAM F [AG/1000]; ADAMS, STEPHEN A [AG/1000]
Subject: RE: Question...

Thanks Bill...in your note, I assume you meant "1" not "w" ppm? (you didn't hold onto that "alt" key long enough on your blackberry)

Steve: anything to add?

Thanks!
E

-----Original Message-----
From: HEYDENS, WILLIAM F [AG/1000]
Sent: Friday, June 11, 2010 12:58 PM
To: HAUPFEAR, ERIC A [AG/1000]; ADAMS, STEPHEN A [AG/1000]
Subject: Re: Question...

Eric,

A long time ago we self-imposed a w ppm spec on the surfactant, if I recall correctly. I don't think we ever changed it.

I am out office until next Wed, but you can check with Steve Adams in the meantime.

Sent from my BlackBerry Wireless Handheld

----- Original Message -----
From: HAUPFEAR, ERIC A [AG/1000]
To: HEYDENS, WILLIAM F [AG/1000]
Sent: Thu Jun 10 12:30:40 2010
Subject: Question...

Hi Bill…what do you know about any "spec" we might have on 1,4-dioxane on our glyphosate formulations? (Is there a spec on the formulation or on the surfactant raw materials)??

We have seen some 1,4-dioxane in some of the Chinese samples…still trying to nail down our quantification…but wanted to see how those levels compare to what we might spec our product at.

Thanks!
E

Message

From: CUNNINGHAM, MICHAEL J [AG/5125] [/O=MONSANTO/OU=NA-5125-01/CN=RECIPIENTS/CN=13642]
Sent: 9/23/2004 1:12:45 PM
To: Sean Kirby [kirby@ProspectusAssociates.com]; FARMER, DONNA R [AG/1000]; JORDAN, TRISH L [AG/5125] [trish.l.jordan@monsanto.com]; 'Fairbrother, Jill' [Jill.Fairbrother@Scotts.com]
CC: MAKI, ROY F [AG/5125]; CARR, KATHERINE H [AG/1000]
Subject: FW: Vision Risks

Hi,

This came to me via JD Irving.

Donna, do we have the counter argument for the N-nitro angle.

I remember seeing one somewhere.

Michael

-----Original Message-----
From: Brunsdon, Blake [mailto:brunsdon.blake@jdirving.com]
Sent: Thursday, September 23, 2004 9:08 AM
To: Mike Cunningham (michael.j.cunningham@monsanto.com)
Subject: Vision Risks

FYI...

- Blake Brunsdon

-----Original Message-----
From: sust-mar-digest-owner@chebucto.ns.ca
[mailto:sust-mar-digest-owner@chebucto.ns.ca]
Sent: Wednesday, September 22, 2004 9:12 PM
To: sust-mar-digest@chebucto.ns.ca
Subject: sust-mar-digest V1 #206

sust-mar-digest Wednesday, September 22 2004 Volume 01 : Number 206

In this week's Sustainable Maritimes (sust-mar) Digest:
sust-mar: Correction on risks of using Vision
sust-mar: Invitation to Join
sust-mar: Release of Greenpeace book, Halifax north end
sust-mar: Internship Position with ACIC
sust-mar: Sable Island: Uncertain Future?
sust-mar: Thursday Sept 23 - National Wilderness Advocates to meet in Halifax
sust-mar: Walk to School Week Oct. 4-8
sust-mar: job opportunity with Sierra Youth Coalition
***

Date: Fri, 10 Sep 2004 07:03:11 -0300
From: "Don Black" <dblack@chebucto.ns.ca>
Subject: sust-mar: Correction on risks of using Vision

Tip: Your message to SUST-MAR must be html-free. So, BEFORE you hit SEND, please go to your "Format" pull-down menu and select "Plain text." Thanks!

Dear Friends

I would like to correct a mistaken impression that might have been created by my previous note.

When I said: "It is absurd to speak of the "safety" of spreading chemicals in the environment when we have literally no idea what new compounds they may form with other chemicals they encounter, nor of the damage those new compounds may cause", I was thinking in the broadest sense.

In fact, scientists do know something about some specific compounds of glyphosate (the known active ingredient in Vision).

"The problem with glyphosate...is that it combines readily with nitrites, found in normal human saliva, to form an N-nitroso compound called N-nitrosoglyphosate. Although that particular compound has not been tested as a cancer-causing agent, over 75% of all other N-nitroso compounds so tested have been shown to cause cancer by way of tumour formation." (Dr. Ruth Shearer, consultant in genetic toxicology, quoted in the Chronicle Herald, 4 Aug 84).

And in its latest review of the scientific literature on glyphosate (1995), Health Canada notes that "Some concern has been expressed over the possibility that glyphosate could react with nitrite in the diet to form N-nitrosophosphonomethyl glycine (NPMG), a putative carcinogen."

So the federal government, through its labelling process, is applying the precautionary principle. It would be contrary to federal law to spray Vision on people (or waterways), because the intent of the labelling process is to absolutely minimize contact between the chemicals and humans, animals or fish.

How could such contact happen? What I saw in 1984 was field workers being unconcerned with personal contact or spillage of Roundup (Vision at a lower concentration), and people being sprayed, as if to demonstrate the government assertion of the time that the product was "safe".

I saw provincial regulations so written that helicoptors were permitted to continue spraying for up to half an hour after wind speeds were known to exceed maximum allowable levels, which in turn allowed drift of the chemicals on neighbouring lands, the workers, and the observer group, which included DNR employees.

I saw totally inadequate signage to warn people that the spray had taken place, or that the chemical would remain active for up to two weeks on berries the community was accustomed to picking in the clearcut.

I saw inadequate buffer areas around streams that were increased through public pressure, then violated by the drift, and no account taken of the machine tracks and erosion that would allow the active chemical, well-bonded to clay soils, to be carried downstream into neighbouring properties, wells and waterways in any heavy rainfall for weeks following the spraying.

In other words, following the Monsanto marketing strategy of falsely claiming the "safety" of these chemicals, our government of-the-day was directly increasing the risk to the health of humans and other forms of life. Again, the trust necessary for responsible government evaporates when government promotes an industry agenda over sound precautionary public health policy.

Thanks to everyone who responded to my first note on this. Anne Rogal points out that Stora now much more than just a "Swedish" corporation. Its head office is in Helsinki, Finland, its international office in London, U.K. with head office functions in Stockholm, Sweden.

More to come. Cheers.

Don Black
Bluedoor.chebucto.net

Date: Sun, 5 Sep 2004 09:19:52 -0400
From: "William Myers" <Wmyers@alternatives.org>
Subject: sust-mar: Invitation to Join

Tip: Your message to SUST-MAR must be html-free. So, BEFORE you hit SEND, please go to your "Format" pull-down menu and select "Plain text." Thanks!

Alternatives Federal Credit Union is pleased to invite you to join our ongoing email discussion listserve on Community Development Banking.

Since 1994, this list has served practitioners including Community Development Credit Unions, CD Banks, CDCs, CD Loan Funds, and non-profits involved in support. The discussions have ranged from the practical (construction, mortgage, and small business lending; job opportunities, conferences, fundraising) to legislative (CRA, HMDA, and CDFI) to the cutting edge (micro-loan funds, peer lending, local currency, targeting social impact).

"The best Community Development Banking resource in Cyberspace."

CommunityDevelopmentBanking-L is an active, free, ongoing email resource of Cornell Community and Rural Development Institute and Alternatives Federal Credit Union.

You may subscribe at our web subscription address,
HTTP://www.alternatives.org/cdblist.htm You'll get a welcome message with
list rules and instructions. Then you'll start getting EMail postings from the list.

ARCHIVES are stored at http://www.lightlink.com/cdb-l/

Please refer any questions to
Bill Myers, List Moderator
WMyers@alternatives.org

- ---
<html>[This E-mail scanned for viruses 09/05/2004 09:19:39]</html>

Did a friend forward this to you? Join sust-mar yourself!
Just send 'subscribe sust-mar' to mailto:majordomo@chebucto.ca

---

Date: Fri, 17 Sep 2004 09:53:04 -0300 (ADT)
From: Martin Willison <willison@dal.ca>
Subject: sust-mar: Release of Greenpeace book, Halifax north end

Tip: Your message to SUST-MAR must be html-free. So, BEFORE you hit SEND, please go to your "Format" pull-down menu and select "Plain text." Thanks!

This message is in MIME format. The first part should be readable text,
while the remaining parts are likely unreadable without MIME-aware tools.
Send mail to mime@docserver.cac.washington.edu for more info.

- ---2119368396-613127408-1095425584=:174544
Content-Type: TEXT/PLAIN; CHARSET=iso-8859-1
Content-ID: <Pine.A41.3.95.1040917094601.174544G@is.dal.ca>

From: Michael T. Hamm

Join Bookmark and Raincoast Books for an evening with Rex Weyler, author of the newly published work "Greenpeace: How a Group of Ecologists, Journalists and Visionaries Changed the World."

Wednesday, 6th October, 7:30 p.m.

Halifax North Public Library
2285 Gottigen Street
Halifax, Nova Scotia
490-5723

For further information, please contact Bookmark at the phone number or email address listed below.

Bookmark II
5686 Spring Garden Road
Halifax, Nova Scotia

B3J 1H5
Phn/Fax: (902) 423-0419
E-mail: bookmark@hfx.eastlink.ca

- ---2119368396-613127408-1095425584=:174544--

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Just send 'subscribe sust-mar' to mailto:majordomo@chebucto.ca

---

Date: Fri, 17 Sep 2004 15:38:08 -0300
From: Jennifer Sloot <info@acic-caci.org>
Subject: sust-mar: Internship Position with ACIC

Tip: Your message to SUST-MAR must be html-free. So, BEFORE you hit SEND, please go to your "Format" pull-down menu and select "Plain text." Thanks!

Through a partnership with the NGO Coalition for the Environment, the Atlantic Council for International Cooperation (ACIC) would like to fill an internship position, which focuses climate change and the environment.

The Atlantic Council for International Cooperation is a unique coalition of Atlantic Canadian organizations working on international development and cooperation issues, working together to achieve sustainable global development in a peaceful and healthy environment, with social justice, human dignity, and participation for all.

ACIC supports its members in development and developmental education through collective leadership, networking, information, training and coordination, and represents their interests when dealing with government and others. With your organization, we now have 40 members, including national organizations and grassroots organizations from across the Atlantic Provinces.

ACIC has been working with NGOCE over the past two years in building its capacity, through an exchange of tools and experience including administrative tools, human resource management techniques, and public engagement tools and resources.

NGOCE is coalition of organizations in Calabar, Cross River State, Nigeria, that has a mandate to develop and support projects that counteract the threat to the biological and cultural diversity and natural resources that sustain the environment while advocating for the sustainable use and equitable distribution of benefits to the people who depend on these resources.

Project Description:
NGOCE and ACIC are partnering to provide each other with tools for increasing their capacity to serve their coalition members. The young professional will assist with transferring knowledge, skills, and tools between NGOCE and ACIC to improve the environmental education services of both organizations.

Job description

Canadian component:

The young professional will be involved with all aspects of the daily operations of the Atlantic Council for International Cooperation (ACIC),
including:

- -Assisting in coordinating a Climate Change public engagement event;
- -Conducting research into climate change and energy efficiency;
- -Promoting ACIC workshops and activities through the media;
- -Networking with members to encourage participation in ACIC's projects;
- -Newsletter editing and layout (Special Climate Change Edition); and,
- -Professional development workshop organization.

Overseas component:

The young professional will transfer skills learned at ACIC and through their educational training to assist NGOCE build its membership base and environmental services:

- -Working with NGOCE's members in environmental education and building awareness;
- -Networking with members to assess avenues in which information can be exchanged;
- -Facilitating partnership development of member organizations;
- -Conducting research into environmental issues, including bush-meat trade and baseline work on renewable energy potentials in communities; and,
- -Newsletter editing and layout.

Qualifications:

CIDA requires the intern:
- -Be aged 30 or under;
- -Be a Canadian citizen or landed immigrant able to work in Canada;
- -Be currently under or unemployed;
- -Have not previously worked outside Canada in a paid, career-related position;
- -Be a graduate of a college or university; and,
- -Have not previously participated in another Internship Program funded by the Government of Canada's Youth Employment Strategy (YES).

The ideal candidate will have:
- -Familiarity with ACIC's and NGOCE's goals and programs;
- -Interest in international cooperation and sustainable development;
- -Experience in organizational management and coordination;
- -Proven skills in project management;
- -Ability to prioritize and effectively handle many demands;
- -Proven computer skills including MS Word, MS Publisher, MS Access, e-mail, internet, and spreadsheet development, all within a PC environment;
- -Attention to detail;
- -Flexibility in work projects;
- -Ability to take initiative;
- -Excellent communication skills, both oral and written;
- -Must be available to travel and work on a few evenings and week-ends;
- -Previous travel or overseas study experience, especially in Africa, would be an asset;
- -Flexibility in work and living environments; and,
- -Fluency in English and French would be a strong asset.

For further information, please see www.acic-caci.org

APPLICATIONS DUE BY: 5:00 pm Friday, September 24, 2004

Applicants should electronically provide a covering letter, highlighting their qualifications for this position, along with a resume and 3 references.

Please send resumes to:
Jennifer Sloot

Atlantic Council for International Cooperation

Email: info@acic-caci.org

We thank all candidates for their application. Unfortunately, only those under consideration will be contacted.

WE'VE MOVED!
Atlantic Council for International Cooperation /
Conseil atlantique pour la coopération internationale
PO Box 27025, 5595 Fenwick Street
Halifax, NS/N.-É. Canada, B3H 4M8
Tel/Tél: (902) 431-2311 Fax/Téléc: (902) 431-2311
E-mail/Courriel: info@acic-caci.org
http://www.acic-caci.org

Date: Sun, 19 Sep 2004 16:45:02 -0300 (ADT)
From: Mark Butler <ar427@chebucto.ns.ca>
Subject: sust-mar: Sable Island: Uncertain Future?

Tip: Your message to SUST-MAR must be html-free. So, BEFORE you hit SEND, please go to your "Format" pull-down menu and select "Plain text." Thanks!

Sable Island: Uncertain Future?

Who's looking after Sable Island? Zoe Lucas, biologist, will be giving a slide presentation on Sable Island and the important role that the Island's Station and staff play in the conservation of this utterly unique place. A panel discussion focusing on the uncertain future of the Station will follow Zoe's presentation. The event is taking place in the Sobey Building, Saint Mary's University on October 5 from 7-9. Mark it in your calendar. Brought to you by the Environmental Studies Program, Saint Mary's University, The Green Horse Society, and the Ecology Action Centre. For more information on Sable Island check out www.greenhorsesociety.com or call the Ecology Action Centre at 902-429-2202 (Mark Butler)

- ----- End forwarded message -----

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Just send 'subscribe sust-mar' to mailto:majordomo@chebucto.ca

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Date: Mon, 20 Sep 2004 15:50:05 -0300
From: Karen Potter <coordinator@cpawsns.org>
Subject: sust-mar: Thursday Sept 23 - National Wilderness Advocates to meet in Halifax

Tip: Your message to SUST-MAR must be html-free. So, BEFORE you hit SEND, please go to your "Format" pull-down menu and select "Plain text." Thanks!

_____

CPAWS-NS invites the public to join us on Thursday September 23 for the National AGM of the Canadian Parks and Wilderness Society (CPAWS). CPAWS-NS is proud to host members and staff from eleven chapters, nationwide, for the first gathering of CPAWS on the east coast. This is a great opportunity to hear from influential conservation leaders and wilderness advocates from coast to coast to coast!

Thursday, September 23, 2004
Weldon Law Building, Room 105
Dalhousie University
6061 University Avenue

6:30 pm AGM
Please join us to hear from our leading conservationists, including Harvey Locke!

7:30 pm Guest Speaker Dr. Jon Lien
Dr. Lien is an Honorary Research Professor in the Biopsychology Programme and the Ocean Sciences Centre at Memorial University of Newfoundland. Currently he Chairs the Minister's Advisory Council on Oceans for the Department of Fisheries and Oceans. He is a past member of the Fisheries Resources Conservation Council in Canada.

For over twenty years he has led the Whale Research Group at Memorial University of Newfoundland that works closely with the Department of Fisheries and Oceans in managing cetaceans in the region. He was responsible for the Entrapment Assistance Programme that operated throughout the Province and helped both the animals and the fishermen with by-catch problems. Currently his research involves evaluation of the impact of whale watching on both animals and people, and estimating fecundity in populations of several species of cetaceans.

Dr. Lien will be discussing how ocean conservation is linked with community survival.

8:30 pm Reception
Following Dr. Lien's talk, CPAWS-NS is hosting a reception to allow for an opportunity to mingle with our guests from across the country

All are welcome. Hope to see you there!

For more information, visit www.cpawsns.org phone 446-4155

_____

Did a friend forward this to you? Join sust-mar yourself!
Just send 'subscribe sust-mar' to mailto:majordomo@chebucto.ca

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Date: Tue, 21 Sep 2004 14:59:51 -0300
From: Janet Barlow <asrts@ecologyaction.ca>
Subject: sust-mar: Walk to School Week Oct. 4-8

Tip: Your message to SUST-MAR must be html-free. So, BEFORE you hit SEND, please go to your "Format" pull-down menu and select "Plain text." Thanks!

WALK TO SCHOOL WEEK: OCTOBER 4 TO 8

Lace up your sneakers for Walk to School Week from October 4 to 8! Join millions of students, teachers, parents and community members around the world as they walk for the environment, health, physical activity and safety. Register at www.goforgreen.ca/asrts, asrts@ecologyaction.ca or (902) 442-5055.

- -30-

For more information, contact Janet Barlow at:

Active & Safe Routes to School
c/o Ecology Action Centre
1568 Argyle Street, Suite 31
Halifax, NS B3J 2B3
Tel: (902) 442-5055
Fax: (902) 422-6410
asrts@ecologyaction.ca
www.ecologyaction.ca

International Walk to School Week is a component of Active & Safe Routes to School, which encourages the use of active modes of transportation to and from school, such as walking or cycling. It is a national Go for Green program coordinated in Nova Scotia by the Ecology Action Centre in partnership with the Nova Scotia Office of Health Promotion, Sport and Recreation Division.

Did a friend forward this to you? Join sust-mar yourself!
Just send 'subscribe sust-mar' to mailto:majordomo@chebucto.ca

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Date: Wed, 15 Sep 2004 12:25:24 -0300
From: "Emily McMillan" <emilym@sierraclub.ca>
Subject: sust-mar: job opportunity with Sierra Youth Coalition

Tip: Your message to SUST-MAR must be html-free. So, BEFORE you hit SEND, please go to your "Format" pull-down menu and select "Plain text." Thanks!

JOB OPPORTUNITY

Regional Project Coordinator OPPORTUNITIES
Sustainable Campuses
Sierra Youth Coalition EMPLOYMENT

- --PLEASE CIRCULATE--

Job Classification: Student Positions
Late September 2004 to April 2005 part-time
Position Title: Atlantic Regional Coordinator,
Sustainable Campuses
Application Deadline: September 20th, 2004
Wage: $12.50/hour

The Sierra Youth Coalition is looking to hire a Regional Coordinator for the Atlantic provinces. This individual will be integral in spreading the tremendous successes of the Greening the Ivory Towers project. The ideal candidate is a motivated, inspired and knowledgeable student, has been active in the sustainable campuses movement, and has previous experience with SYC programs. As this is a demanding project with huge rewards it is desired that successful applicants not have a full/heavy course load.

Project Overview:

The Sustainable Campuses project is currently one of SYC's main focus areas. The project seeks to inspire, inform, train, and support Canadian students in the pursuit of social and environmental change through their campus. The Sustainable Campuses project aims to promote a systematic approach to change in campus practices. It promotes students' efforts to work within the systems of their educational institutions in order to create permanent, institutionalized mechanisms to ensure sustainability.

In 2003, the Sierra Youth Coalition launched an innovative project to assist students, faculty and administration in increasing the sustainability of Canadian post-secondary institutions through improved

Message

From: ROOSE, BART [AG/5035] [/O=MONSANTO/OU=EA-5035-01/CN=RECIPIENTS/CN=93643]
Sent: 2/13/2016 6:06:31 PM
To: KLOPF, GARY J [AG/1000] [/O=MONSANTO/OU=NA-1000-01/cn=Recipients/cn=162545]; GARNETT, RICHARD P [AG/5040] [/O=MONSANTO/OU=EA-5041-01/cn=Recipients/cn=107838]
CC: FLAGG, LISA M [AG/1000] [/O=MONSANTO/OU=NA-1000-01/cn=Recipients/cn=551087]; LEI, PENG [AG/1000] [/O=MONSANTO/OU=NA-1000-01/cn=Recipients/cn=812920]; MANNION, RHONDA M [AG/1000] [/O=MONSANTO/OU=NA-1000-01/cn=Recipients/cn=226139]; VERWAEST, KIM [AG/5035] [/O=MONSANTO/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=KVERW]
Subject: RE: PPCR: EMEA, 20160208, MON 76952 (SuperZanussi), NNG and formaldehyde testing before and after aging

All,

I talked to Kim to understand current practice:

We do real ageing (under GLP) at Gembloux, but they cannot measure NNG under GLP

This aged sample is then send to STL for GLP NNG data (we know initial NNG results from Antwerp lab, but that is not GLP)

If we cannot wait for real aged data, and we need accelerated ageing data

My comment is to be prudent and take into account the chemistry of the formulation ingredients.

p.e.: The Zanussi amineoxide ingredient can be more sensitive to heat, so prudence is needed

I would suggest we agree in writing that 'bad results' of NNG due to accelerated ageing can be caused by the heat level and is therefore not representative for 'normal ageing'.

We need to get a chance for a reanalysis at lower temperature, in other words the result is not final, not binding

If we cannot do this as a general statement, we need to rely on chemistry evaluation to assess the risk upfront

Regards, Bart

From: KLOPF, GARY J [AG/1000]
Sent: vrijdag 12 februari 2016 19:19
To: GARNETT, RICHARD P [AG/5040]; ROOSE, BART [AG/5035]

Cc: FLAGG, LISA M [AG/1000]; LEI, PENG [AG/1000]; MANNION, RHONDA M [AG/1000]
Subject: RE: PPCR: EMEA, 20160208, MON 76952 (SuperZanussi), NNG and formaldehyde testing before and after aging

Richard, Bart –

I agree with your comments on temperature selection. If I'm remembering correctly, doesn't this harken back to what was done with the current Zanussi formulation (MON 79351)? If so, can the same protocol be followed for any work done in this case (and then utilize whatever justification was developed then)?

Gary (314-694-8784)

From: GARNETT, RICHARD P [AG/5040]
Sent: Wednesday, February 10, 2016 5:55 AM
To: FLAGG, LISA M [AG/1000]; ROOSE, BART [AG/5035]; KLOPF, GARY J [AG/1000]; LEI, PENG [AG/1000]
Subject: RE: PPCR: EMEA, 20160208, MON 76952 (SuperZanussi), NNG and formaldehyde testing before and after aging

Bart and all,

This is not a unique request. Recall that we undertook storage stability on representative liquid and dry products to address similar questions from a small number of member states during the registration and re-registration processes post Annex I inclusion. This was derived from the old FAO spec (2001/2)

.5.2 Stability at elevated temperature (MT 46.3)

After storage at 54 + 2oC for 14 days, the average determined Glyphosate content must not be lower than 95 % relative to the determined content found before storage and the product shall continue to comply with .3.3.1, 3.3.2 and .4.1.

where .3.3.1 and .3.3.2 are formaldehyde and NNG respectively. [the new FAO spec does not reference impurities after storage but as you know there are so many mistakes currently being corrected that, perhaps, countries tend to ignore it?]

As far as I can see, the EU legislation has never specified a requirement for measuring impurities after storage but it is a logical request, particularly given the FAO spec.

So, I think we need to address the point but don't want to do this for all formulations in the re-registration. It may be possible to argue that the study on MON 78294 is adequate to address other soluble concentrates. If a new study is needed, then I agree with Bart's proposal on using the lowest allowable temperature (30C for 18 weeks or 35 for 12 weeks if time is critical).

I will not be in Brussels office until 22 Feb, so will engage Wibke by phone and email if we can agree a recommendation to her and the analytics team. Lisa, can you bring up with Brianna before "the horse has bolted" please.

regards

Richard

From: FLAGG, LISA M [AG/1000]
Sent: Tuesday, February 09, 2016 23:05
To: ROOSE, BART [AG/5035]; GARNETT, RICHARD P [AG/5040]; KLOPF, GARY J [AG/1000]; LEI, PENG [AG/1000]
Subject: RE: PPCR: EMEA, 20160208, MON 76952 (SuperZanussi), NNG and formaldehyde testing before and after aging

I'm looping in Gary and Peng – are there other considerations to take into account with this request (see email string re: SuperZanussi in EU)

Lisa Flagg

Global Product Quality Lead, Crop Protection

Office: 314-694-1717

Mobile: 314-856-3810

From: ROOSE, BART [AG/5035]
Sent: Monday, February 08, 2016 11:04 AM
To: GARNETT, RICHARD P [AG/5040]; FLAGG, LISA M [AG/1000]
Subject: RE: PPCR: EMEA, 20160208, MON 76952 (SuperZanussi), NNG and formaldehyde testing before and after aging

Richard, thanks for forward

The first time I see this

- Request for method validation for NNG and FORMALDEHYDE
- Relevant impurities after ageing ?????
    - is this in FAO manual? I cannot remember having seen this
    - **I ask for caution for NNG**: the higher the temperature, the more chance you have minor decomposition (ppb level) maybe creating NNG
    - To avoid false elevated levels, ageing effect on NNG should be done at the lowest possible temp (not 2 weeks 54°C, more weeks at lower temp)
    - **I would push back on this test because NNG formation during ageing should not be done with forced (accelerated) ageing**

Regards, Bart

From: GARNETT, RICHARD P [AG/5040]
Sent: maandag 8 februari 2016 13:38
To: FLAGG, LISA M [AG/1000]; ROOSE, BART [AG/5035]
Subject: FW: PPCR: EMEA, 20160208, MON 76952 (SuperZanussi), NNG and formaldehyde testing before and after aging

FYI

From: MEYER, WIBKE [AG/5040]
Sent: Monday, February 08, 2016 12:16
To: WHITE, BRIANNA [AG/1005]
Cc: KAEMPFE, TERRY A [AG/1000]; HAY, JANELL D [AG/1000]; BRADDOCK, PHILIP K [AG/1000]; GARNETT, RICHARD P [AG/5040]; LAMITOLA, STEPHEN [AG/1000]; GOLEY, JEAN C [AG/1005]; HOLLAND, ELAINE M [AG/1000]; GUSTIN, CHRISTOPHE [AG/5040]; MIDGLEY, BRIAN [AG/5040]; MANNION, RHONDA M [AG/1000]; VERWAEST, KIM [AG/5035]
Subject: PPCR: EMEA, 20160208, MON 76952 (SuperZanussi), NNG and formaldehyde testing before and after aging

Dear Brianna,

For the submission of MON 79652 (SuperZanussi) in the EU we have to provide data on the content of relevant impurities of the formulation, before and after storage. All studies must be GLP.

MON 76952 samples can be provided from Antwerp. I copy Kim for the arrangement of samples.

#	Item	Requestor's Input
1	**Who** are the teams that need to respond to this request?	Product Chemistry
2	**What** product(s) does this request support and for what agency, region and/or business unit	MON 76952 Submission in all member states of the EU For North: Denmark For Central: UK For South: France
3	**When** is the target deadline for the response and identify the implications if the deadline cannot be met	Target deadline for validate methods and accelerated aging: end August 2016 Tier 2 summaries target date: end October 2016 Implications of not meeting the deadline: Late submission, reputation damage with authorities and ultimately late launch of product
4	**What** is being asked for and what should the final work product be (e.g GLP study, white paper, email responses, publications)	• Validated method for NNG and formaldehyde in MON 76952 (GLP) • Accelerated aging study (14 d at 54 °C) + content of NNG and formaldehyde before and after aging (GLP) • storage stability study at ambient temperature in commercial packaging + content of NNG and formaldehyde before and after 1 and 2 years

		ageing (GLP) • Tier 2 summaries for inclusion in the dossier
5	*Please note if additional outside spend may be needed- comment on the progress towards budget approval and addition to forecast*	

If you have questions please let me know.

Thanks.

Kind regards,

Wibke

Dr. Wibke Meyer

Regulatory Affairs Specialist EMEA | Monsanto Europe N.V. | Tervurenlaan 270-272, 1150 Brussels, Belgium | Phone: +32 2 776 76 29 | mobile: +32 473 17 77 54 | Email: wibke.meyer@monsanto.com

understanding of their ecological, economical and social impacts. That is the goal of Greening the Ivory Towers: Academia to Action.

This project uses Canada's first academically developed Campus Sustainability Assessment Framework (CSAF) to assist universities in accurately understanding their socio-economic and environmental impacts. The CSAF was designed to offer support, resources and assistance in developing solutions that address overarching structural problems in society, as well as striving to facilitate institutional and lifestyle changes.

Responsibilities:

1) To work closely with a minimum of 3 campuses at implementing the Greening the Ivory Towers project;
2) To recruit volunteers to help oversee the project on each campus;
3) To train campus community members of conducting audits, setting processes and strategic planning;
4) Outreach to participants within and outside the current Sustainable Campuses Network;
5) Report regularly to National Coordinator and participate consistently on Regional Coordinator calls;
6) Network with regional groups as a representative of the Sierra Youth Coalition;
7) Attend Regional Coordinator Training in Ottawa between Aug. 29th - Sept. 2nd;
8) Attend the Sierra Youth Coalition Sustainable Campuses Conference between Sep. 30th - Oct. 3rd.

Preferred Qualifications:
Ø Possess knowledge of campus sustainability initiatives and the Sierra Youth Coalitions programs;
Ø Bilingual (french/english) will be required in some regions;
Ø Strong writing and research skills;
Ø Ability work in flexible work environment;
Ø Ability to work independently but also as part of a team;
Ø Ability to learn quickly;
Ø Strong organizational and project coordination skills;

For more information please view the Sierra Youth Coalition website: www.syc-cjs.org/gitp

IT IS PREFERRED THAT CANDIDATES SEND THEIR CV, COVER LETTER AND A SHORT WRITING SAMPLE ELECTRONICALLY! (to help save paper) Put Sustainable Campuses CV in the subject area and email to fernando@syc-cjs.org

Suite 412 - 1 Nicholas Street, Ottawa, Ontario, K1N 7B7
(613) 241-1615, 1-888-790-7393; FAX: (613) 241-2292

SYC is an equal opportunity employer and encourages applications from members of minority groups.

Emily McMillan
Director, Sierra Club of Canada - Atlantic Canada Chapter
1657 Barrington St., Suite 502
Halifax, NS, B3J 2A1
emilym@sierraclub.ca
Phone: 902-444-3113
Fax: 902-444-3116
www.sierraclub.ca/atlantic

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Message

From: JENKINS, DANIEL J [AG/1920] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=813004]
Sent: 5/9/2014 2:10:26 PM
To: AHLERS, ERIN M [AG/1000] [/O=MONSANTO/OU=NA-1630-01/cn=Recipients/cn=172788]
Subject: RE: sodium sulfite/what is the resolution of this?

Got it, let me know...

Dan Jenkins
U.S. Agency Lead

Regulatory Affairs
Monsanto Company
1300 I St., NW
Suite 450 East
Washington, DC 20005

Office: 202-383-2851

Cell: 571-732-6575

From: AHLERS, ERIN M [AG/1000]
Sent: Friday, May 09, 2014 10:01 AM
To: JENKINS, DANIEL J [AG/1920]
Subject: FW: sodium sulfite/what is the resolution of this?

Not to tattle, but you asked for real-time feedback.

I spoke with Erik on Wednesday and specifically ask that he NOT talk to the agency until he had a chance to discuss with Steve and collectively come up with a reasonable way to approach/state the issue/need without stirring up any unnecessary concern. The note Thursday appears to have been sent without that happening (Steve has not talked directly to Erik on the phone).

I haven't had a chance to discuss with Erik, but if it happened in the manner that I think it did, I am very disappointed. Hope to talk to Erik about this today.

From: ADAMS, STEPHEN A [AG/1000]
Sent: Thursday, May 08, 2014 4:41 PM
To: JANUS, ERIK [AG/1920]
Cc: AHLERS, ERIN M [AG/1000]
Subject: RE: sodium sulfite/what is the resolution of this?

Erik –

If you talk to Kerry, I wouldn't push the NNG issue too hard – don't want to draw attention to the toxicity of our product, but the idea of removing nitrates that could be transformed into nitroso compounds should be of interest to EPA.

Technology is anxious and needs to know how to proceed as quickly as possible, so as you hear anything, please pass it over the fence.

Thanks!

Steve

From: JANUS, ERIK [AG/1920]
Sent: Thursday, May 08, 2014 2:41 PM
To: ADAMS, STEPHEN A [AG/1000]
Cc: AHLERS, ERIN M [AG/1000]
Subject: RE: sodium sulfite/what is the resolution of this?

Steve,

Thanks for this add'l info. I have a note into Kerry Liefer following up on our last conversation and outlining some of the new info you present below. I did indeed use your highlighted points, not verbatim, but used. Apologies for the delay,

but I needed to go back and review the registration review documents he pointed me towards when we last spoke. These were of no help and I'm not sure why he pointed me towards them as they don't address issues with using a sulfite inert and don't address the FDA process. I hope to get an answer from him in the next few days.

Thanks, I'll be in touch,

- Erik

From: ADAMS, STEPHEN A [AG/1000]
Sent: Tuesday, May 06, 2014 3:34 PM
To: JANUS, ERIK [AG/1920]
Cc: AHLERS, ERIN M [AG/1000]
Subject: RE: sodium sulfite/what is the resolution of this?

Erik –

To follow up on our conversation the other day at our Team meeting, the Petition Monsanto filed asking EPA to grant an exemption from the requirement of a tolerance for sodium sulfite is still open/pending; however, EPA is not too anxious to grant such an exemption while FDA is reviewing the safety of sodium sulfite to humans.

The fact is that having sodium sulfite available for use in pesticides labeled for food-use PRIOR TO HARVEST would be of tremendous value to Monsanto to control nitrate levels in formulations containing the ethanolamine salt form of Glyphosate, which can be converted into N-nitroso-glyphosate (NNG), an impurity of toxicological significance with an upper concentration limit of 1 ppm in Glyphosate products. Do you think there is any way that we could successfully negotiate with EPA to allow the addition of sodium sulfite at a maximum concentration of 0.2% by weight of the total formulation? We don't need much!

Would you be willing to discuss this proposal with EPA? Of course, I would be happy to write up an argument that we could submit to support our request.

There are a couple of points that I would highlight:

1. Sodium sulfite (as far as I can tell) is still listed at 21 CFR 582.3798 as being generally recognized as safe when used in accordance with good manufacturing or feeding practices, except that it is not used in meats or in food consumed as a source of vitamin B1.

2. If we were to add sodium sulfite to our concentrated formulation at 0.2% by weight, it would roughly only represent a concentration of around 0.004% or so in the diluted spray solution (44 fl ounces applied in 20 gallons of water per acre, as an example) applied to the growing crop. By the time you consider exactly how much of that actually gets on the food commodity it is incredibly infinitesimal.

3. The use of low levels of sodium sulfite to ensure low levels of NNG, an impurity of known toxicological significance, is well worth the risk.

4. We are NOT asking that sodium sulfite be allowed in formulations labeled for application POST-HARVEST, only prior to harvest. Therefore, sodium sulfite would not be applied in any pesticide formulation that is applied directly to the raw agricultural commodity or processed food product.

Like I said, this use of sodium sulfite is of considerable importance right now to Monsanto's Roundup Xtend products. I think it is worth us trying a little harder to get this use out of EPA, if at all possible. The only other option we currently have to consider is the use of ascorbic acid that greatly increases the cost of goods of these crop protection products.

Let me know what you think and, if you agree, how you would like to approach EPA with this.

Thanks,

Steve

From: ADAMS, STEPHEN A [AG/1000]
Sent: Thursday, April 10, 2014 12:18 PM
To: JANUS, ERIK [AG/1920]
Subject: RE: sodium sulfite/what is the resolution of this?

Here is the cover letter that went with the Petition for reinstatement of an exemption from the requirement of a tolerance for sodium sulfite. There was also a 2-volume set of administrative documents and tox summaries intended to

support the Petition. I can't find any correspondence in our Reg Affairs Library from EPA providing any evaluation of our Petition, so not sure where it ended up or how it got to where it is today – nowhere.

The data volumes are too big to send via email, but I can place them in my public folder on Finch and send you a link, if you want to look at them. I think at this point it would be just as well to find out what EPA did with our Petition and why they did not grant the exemption from the requirement of a tolerance.

Steve

From: JANUS, ERIK [AG/1920]
Sent: Thursday, April 10, 2014 11:46 AM
To: ADAMS, STEPHEN A [AG/1000]
Subject: sodium sulfite/what is the resolution of this?

PP 7E7261. (EPA-HQ-OPP-2008-0043). Monsanto Company, 1300 "I" St., NW. Suite 450 East, Washington, DC 20005, proposes to amend 40 CFR 180 by establishing an exemption from the requirement of a tolerance for residues of sodium sulfite in or on any food or feed commodity when used as an inert ingredient in a pesticide product with the following limitations: Not to exceed 0.8% by weight in the formulated product. For use only in formulated products containing the active ingredient glyphosate and applied only to growing crops. Because this petition is a request for an exemption from the requirement of a tolerance, no analytical method is required. Contact: Karen Samek, telephone number: (703) 347-8825; e-mail address: *samek.karen@epa.gov*.

https://www.federalregister.gov/articles/2008/02/06/E8-2172/notice-of-filing-of-pesticide-petitions-for-residues-of-pesticide-chemicals-in-or-on-various

Erik R. Janus

US Agency Lead, Chemistry

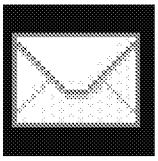
Monsanto Company

Message

From: GUSTIN, CHRISTOPHE [AG/5040] [/O=MONSANTO/OU=EA-5041-01/CN=RECIPIENTS/CN=83930]
Sent: 11/12/2008 9:08:45 AM
To: KRONENBERG, JOEL M [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=501517]; FARMER, DONNA R [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=180070]; BLEEKE, MARIAN S [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=198145]; SALTMIRAS, DAVID A [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=DASALT]; GARNETT, RICHARD P [AG/5040] [/O=MONSANTO/OU=EA-5041-01/CN=RECIPIENTS/CN=107838]
CC: KURTZWEIL, MITCHELL L [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=9788]
Subject: RE: Pk recovery Wester et al
Attachments: Comparison of Gly Monkey Studies.xls

Joel,

Monsanto is a company with recurring discussions (which is good!)... You will remember that we discussed this in length with a lot of people before we initiated the Spanish OPEX study...(please see attached). The outcome was that (1) other animal data confirmed the Wester findings (2) such a study would be too risky (potential for finding another mammalian metabolite) and (3) we would wait for the evaluation of Spain.



Looking forward to this discussion on the 24th of November. I also recall that David has asked 2 external pharmacologists for an opinion on the Wester Study. Would that opinion be available by that time?

Kind regards,
Christophe

From: KRONENBERG, JOEL M [AG/1000]
Sent: Monday, November 10, 2008 3:21 PM
To: GARNETT, RICHARD P [AG/5040]; SALTMIRAS, DAVID A [AG/1000]; GUSTIN, CHRISTOPHE [AG/5040]; FARMER, DONNA R [AG/1000]; BLEEKE, MARIAN S [AG/1000]
Subject: RE: Pk recovery Wester et al

To fully address this issue would likely require a repeat of the monkey dermal and intravenous studies. We no longer own the custom designed monkey chairs that prevented exfoliated abdominal skin from contaminating the excreta. Additionally, it is not clear whether similar chairs are used anymore by any researcher or if they would even be allowed. Thus, conducting a new series of monkey studies may not be easy nor inexpensive. Furthermore, it is not clear to me that such a study is necessary and would be totally without risk. Should we arrange a conference call to discuss this?

Joel

-----Original Message-----
From: GARNETT, RICHARD P [AG/5040]

Sent: Monday, November 10, 2008 4:07 AM
To: SALTMIRAS, DAVID A [AG/1000]; GUSTIN, CHRISTOPHE [AG/5040]; FARMER, DONNA R [AG/1000]
Cc: KRONENBERG, JOEL M [AG/1000]
Subject: RE: Pk recovery Wester et al

Dear team,
To me all this discussion continues to show that we still need solid data for ADME arising from dermal exposure.

- Our dermal absorption end point is based on the literature and, as I recall, we failed to get the original data to support the results.
- The movement of glyphosate in the blood flow from dermal contact is different to that through oral or intravenous exposure. The little data we have suggests that the excretion is significantly more through the faeces than the urine.
- Dermal exposure is the greatest risk of exposure for operators. Therefore, we need to be secure on the ADME of such exposure.
- The WHO and EU reviews focus on the IV and oral but not the dermal.

My position is therefore unchanged. We need to address this properly in the Annex II dossier and therefore should be considering a study.
Regards
Richard

From: SALTMIRAS, DAVID A [AG/1000]
Sent: 06 November 2008 20:25
To: GUSTIN, CHRISTOPHE [AG/5040]; FARMER, DONNA R [AG/1000]; COSTA, JAIME [AG/5158]
Cc: KRONENBERG, JOEL M [AG/1000]; GARNETT, RICHARD P [AG/5040]
Subject: RE: Pk recovery Wester et al

Christophe,

Yes. I'll put together a draft position document & circulate (hopefully tomorrow).

Donna – thanks for your input!

David

David Saltmiras, Ph.D., D.A.B.T.
Toxicology Manager
Regulatory Product Safety Center
Monsanto
ph (314) 694-8856

From: GUSTIN, CHRISTOPHE [AG/5040]
Sent: Thursday, November 06, 2008 11:34 AM
To: FARMER, DONNA R [AG/1000]; SALTMIRAS, DAVID A [AG/1000]; COSTA, JAIME [AG/5158]
Cc: KRONENBERG, JOEL M [AG/1000]; GARNETT, RICHARD P [AG/5040]
Subject: RE: Pk recovery Wester et al

Dear Donna,

This evaluation from the WHO submission really puts things in the correct perspective and is exactly what we needed. Thanks for that.
Interesting point you raise on the blood flow but it takes an expert to comment on this I'm afraid…

David, could we bundle these points in a short but balanced positioning document with reference to the WHO conclusion?

Best regards and thanks,
Christophe

From: FARMER, DONNA R [AG/1000]
Sent: Thursday, November 06, 2008 4:23 PM
To: GUSTIN, CHRISTOPHE [AG/5040]; SALTMIRAS, DAVID A [AG/1000]; COSTA, JAIME [AG/5158]
Cc: KRONENBERG, JOEL M [AG/1000]; GARNETT, RICHARD P [AG/5040]
Subject: RE: Pk recovery Wester et al

Christophe and all,

Unfortunately that wasn't our only response we were going to add additional argumentation we were trying to find out how far below the AOEL we were.

See the attached it is the overview from our WHO submission.

We were going to suggest adding the consistency across the species …no metabolism, rapid elimination, and if you look at the table with IV, IP and IM injections you see the urine and fecal excretions. The IM was in monkeys and 89.9% of the applied radioactivity was excreted in the urine - they did not look at fecal or tissue levels. The summary goes on to say…"Following intraperitoneal, intravenous or intramuscular administration glyphosate is primarily excreted in the urine. The limited faecal excretion is probably due to biliary elimination. Therefore, excretion of absorbed material is almost entirely in urine with the majority of faecal radioactivity representing unabsorbed material."

I was also thinking about the cutaneous absorption and blood flow. In humans the venous drainage for the skin around the umbilicus connects with veins that drain directly into the portal vein and then directly into the liver. Contrast this to the IV, IM or IP…where veins from those areas take blood to the heart, then it goes to the lung, then back to the heart and out the arterial system via the aorta and is then distributed to the rest of the body…..liver, kidneys etc.

In the cutaneous exposure could some glyphosate be absorbed directly into the liver, excreted into the bile and therefore never has a chance to circulate and get to the kidney?

How would this influence the levels of glyphosate that we see between those two routes of exposure and the variability in the cutaneous study? Could there be differences in the venous drainage from animal to animal?

Thoughts???

Donna

<< File: WHO ADME overview.doc >>

-----Original Message-----
From: GUSTIN, CHRISTOPHE [AG/5040]
Sent: Wednesday, November 05, 2008 5:45 AM
To: SALTMIRAS, DAVID A [AG/1000]; COSTA, JAIME [AG/5158]
Cc: FARMER, DONNA R [AG/1000]; KRONENBERG, JOEL M [AG/1000]; GARNETT, RICHARD P [AG/5040]
Subject: RE: Pk recovery Wester et al

All,

Even though we can absorb additional 'uncertainty factors' in our risk assessment based on our biomonitoring results, I feel uncomfortable with this discussion. This approach by Spain sets a precedent and contradicts the fact that we always claimed to fully understand the glyphosate pharmaco-kinetics. The Wester iv-experiment suggests that almost the entire 'systemically' available dose was excreted in urine. The low dose topical *in vivo* experiment suggests that almost the entire dose (82%) that was absorbed through the skin was excreted in feces (3.6% feces versus 0.8% in urine). We should have a robust and well documented explanation for this and stick to our original risk assessment or develop additional data to fully understand this matter and adjust our systemic dose calculations accordingly.

Just my humble opinion,
Christophe

From: SALTMIRAS, DAVID A [AG/1000]
Sent: Tuesday, November 04, 2008 9:46 PM
To: COSTA, JAIME [AG/5158]; GUSTIN, CHRISTOPHE [AG/5040]
Cc: FARMER, DONNA R [AG/1000]; KRONENBERG, JOEL M [AG/1000]
Subject: RE: Pk recovery Wester et al

Jaime,

Joel, Donna & I have discussed your approach and you are correct.

How much below the AOEL are your calculations?

Christophe - by our rough calculations Jaime's approach is approximately 50 x below the AOEL of 0.2 mg/kg/day. Even if we applied the 90th percentile for the passive dosimetry numbers we would be below the AOEL.

Thanks,

David

David Saltmiras, Ph.D., D.A.B.T.
Toxicology Manager
Regulatory Product Safety Center
Monsanto
ph (314) 694-8856

From: COSTA, JAIME [AG/5158]
Sent: Tuesday, November 04, 2008 9:40 AM
To: GUSTIN, CHRISTOPHE [AG/5040]
Cc: FARMER, DONNA R [AG/1000]; SALTMIRAS, DAVID A [AG/1000]
Subject: RE: Pk recovery Wester et al

Christophe,

Many thanks for your help, which I will try to defend as Monsanto position, but the authorities will decide next week –that means they are now doing the homework- if our proposed safety evaluation for CAYENNE formulation is compatible with the Acceptable Operating Exposure Level (AOEL) for glyphosate. I imagine we do not have other studies on the urine/feces excretion after topical applications of glyphosate to support our position. As it is critical that we have our product accepted in this coming meeting, I would like to complete my defense with a paragraph like this one:

Although we believe that the intravenous dose is accepted by toxicology peer reviewers as the best indicator to simulate the systemic presence of glyphosate, in case the Spanish authorities consider that the excretion through the urine should be taken from the variable data reported in the topical administration (urine / urine + feces = 75,86% or 18,18%), the average excretion in the urine of 47,02% would mean that our final exposure values should be multiplied by 2,13, resulting in exposure levels which are well below the AOEL of 0,2 mg/kg/day.

Donna and David,
Please let me know if I should rephrase my statements.

Best regards
Jaime.

From: GUSTIN, CHRISTOPHE [AG/5040]
Sent: martes, 04 de noviembre de 2008 15:40
To: COSTA, JAIME [AG/5158]
Cc: FARMER, DONNA R [AG/1000]; SALTMIRAS, DAVID A [AG/1000]
Subject: Pk recovery Wester et al
Importance: High

Jaime,

I also included Donna Farmer and David Saltmiras into the discussion.. ..
Indeed the Wester Study has an IV-experiment and an in vivo dermal experiment in Rhesus monkeys.

The IV data gives in vivo disposition of a systemic available dose. This dose could be the result of aggregate systemic exposure (meaning a systemic dose after combined oral, dermal in inhalation exposure). The total accountability of this experiment is high >96% -~100% and we know exactly the amount that was systemically available. The recovery factor for urine is therefore relevant and reliable.

The in vivo dermal absorption experiment yielded variable results (table 4) and much lower total accountability 77-82% which is normal for this kind of experiments. The authors take the outcome of the IV-experiment to justify the use of the urinary excretion results from the topical experiment **only** as an estimate for dermal uptake : "Since all of the iv administered doses were excreted in urine, the percutaneous absorption of glyphosate is estimated to be 0.8-22% of the applied dose" (p728-729). They did not take the feces into account based on the iv-study.

So they acknowledge that an IV dose is representative for a systemic dose that results from e.g dermal exposure. In addition this means that the urinary recovery we applied to correct our systemic dose is conservative (Wester assumed everything would be recovered in urine).

The methodology used in our bio-monitoring study was peer reviewed (Acquavella paper) so recognized by independent experts as sound and valid.

Donna, please brief david and give Jaime additional ammunition. I'm running late for an appointment outside the office. I will check e-mail tonight to see whether there are still open questions.

Thanks and regards,
Christophe

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